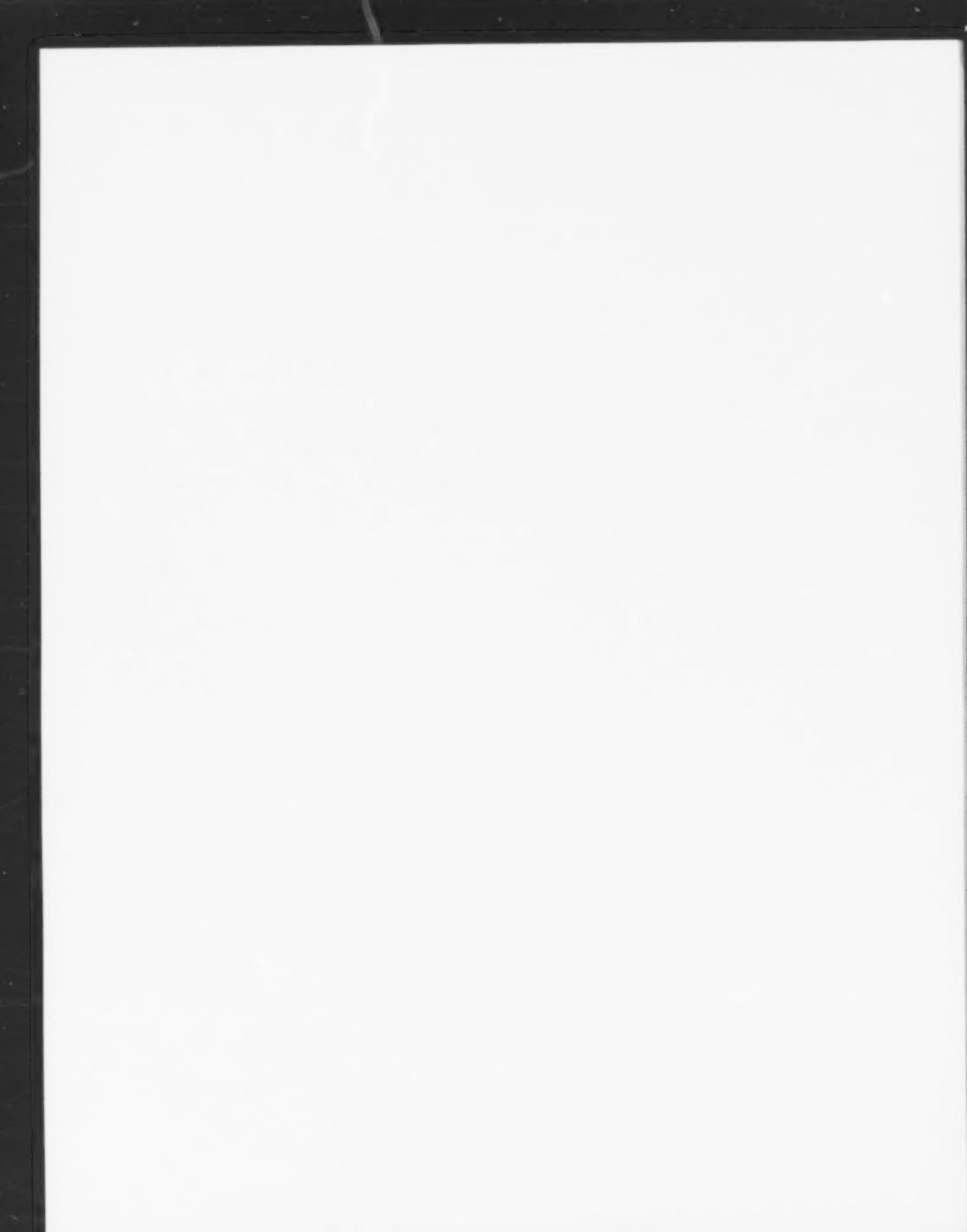

WEST NILE VIRUS:

Alberta's Response Plan (2005)

Alberta



Alberta's West Nile virus Response Plan (2005)

An Interdepartmental Plan

Under the leadership of the Provincial Health Office, five government departments have updated a coordinated provincial plan for responding to West Nile virus (WNV) in Alberta.

The five government departments are:

- Alberta Agriculture, Food and Rural Development
- Alberta Environment
- Alberta Health and Wellness
- Alberta Municipal Affairs
- Alberta Sustainable Resource Development

Purpose of the Plan

To minimize the risk of WNV infection to humans

Basis of the Plan

Alberta's WNV plan has been modified for 2005 based on:

- Our experience in 2003 and 2004 in Alberta
- What has been learned about WNV in the USA and other parts of Canada since it was first identified in North America in 1999
- U.S. Centers for Disease Control and Prevention *Epidemic/Epizootic West Nile Virus in the United States: Guidelines for Surveillance, Prevention and Control* (2003)
- Canadian National West Nile virus Review and Planning Meeting 2005
- United States National West Nile virus Meeting 2005

Key Components

A number of coordinated activities will provide a comprehensive program for:

- Surveillance or monitoring for WNV in Alberta
 - Communicating with the public and with professionals
 - Targeted mosquito control activities
- | | |
|-------------------|---|
| Humans | <ul style="list-style-type: none"> • Laboratory testing protocols • WNV education program for physicians • Protection of the blood supply • Reporting and follow-up of confirmed cases |
| Birds | <ul style="list-style-type: none"> • Testing of crows, magpies, blue jays and ravens • Surveillance in southern and central Alberta limited after 6 positive birds • Surveillance to focus on northern and western regions |
| Horses | <ul style="list-style-type: none"> • Information for veterinarians and horse owners • Reporting laboratory confirmed positive horses to stakeholders and the public |
| Mosquitoes | <ul style="list-style-type: none"> • Continued surveillance of the virus in adult <i>Culex</i> mosquitoes in central and southern Alberta • Funding support to municipalities in high risk areas for control measures targeted at larvae of the mosquitoes known to carry the West Nile virus |

WEST NILE VIRUS MONITORING AND RESPONSE

HUMANS

All Cases Reported

Under the authority of the Public Health Act, human cases of WNV infection are reported to public health officials in Alberta.

The milder form of the infection WN Fever, and the more serious form of the disease known as WN Neurological Syndrome are both reported to regional Medical Officers of Health, Alberta Health and Wellness, Health Canada and if necessary, to the Canadian Blood Services.

Blood Supply Protected

The Canadian Blood Services will be notified when a person with a suspected or confirmed case of WNV has donated or received blood or blood products. Measures will then be taken by Canadian Blood Services to prevent the possibility of WNV transmission.

Physicians Alerted

Once WNV is confirmed in Alberta in a bird, horse, and mosquito pool or in a person who does not have a history of travel to an area with WNV, the Provincial Health Office (PHO) will contact all physicians, through the local Medical Officer of Health, to ask them to consider WNV when someone presents with specific symptoms.

Medical Officers of Health will also contact key medical personnel such as emergency room physicians, neurologists and infectious disease specialists to discuss enhanced WNV monitoring within the regional health authority.

WNV Education for MDs

Resource material is being developed for physicians to ensure that they have the latest information on clinical presentation of WNV infection, laboratory testing and reporting.

Fast Laboratory Results

All West Nile virus testing in Alberta will be carried out by the Provincial Laboratory of Public Health (Microbiology).

Messages to the Public

On an ongoing basis, the PHO will monitor and report on the number of suspect or confirmed cases of WNV human infections in Alberta.

The numbers of confirmed cases of WNV will be posted on the Alberta Health and Wellness West Nile virus website.

Prevention Stressed

A public awareness campaign will inform Albertans of WNV, how it is spread and the measures they can take to protect themselves and their families.

Ongoing Coordination

The PHO will participate in the regular F/P/T (Federal/ Provincial/ Territorial) teleconferences that address WNV in Canada. Alberta's Interdepartmental Committee will continue to evaluate Alberta's WNV plan within the context of what is happening in this province, nationally and internationally.

BIRDS

Role in Surveillance

Birds are the natural hosts for WNV. Since 1999, WNV has been identified in over 160 species of wild, captive and domestic birds in North America. Although the majority of these species appear to be unaffected, members of the crow family (Corvids) seem to be highly susceptible to WNV and die soon after infection. Therefore, these birds are widely used as sentinels or early warning indicators of the presence of WNV in a geographic area.

The main purpose of WNV surveillance in birds is to identify the presence of the virus so that steps can be taken to reduce the risk of disease in humans.

WNV Expected in 2005

Migratory birds returning to Alberta in the spring will undoubtedly bring WNV back to Alberta. As occurred in 2003, and to a lesser degree in 2004, limited bird mortality is likely to occur over a wide geographical range in the spring and early summer. Mosquitoes that bite infected birds will potentially pick up the virus and spread it within an area and then, to other parts of the province throughout the summer.

Monitoring Dead Corvids

The wild bird surveillance program in Alberta will begin on June 1, 2005 and end approximately September 30. The program will focus on dead crows, magpies, blue jays, and ravens. These species are relatively widespread throughout the province and they have high WNV mortality. A rapid, reliable diagnostic test will be used to detect the presence of the virus.

The surveillance program will monitor WNV in corvids in the six natural regions in the province - Grassland, Parkland, Foothills, Rocky Mountains, Boreal Forest and Canadian Shield. Ongoing surveillance will be discontinued in areas where the virus was detected previously once there is confirmation of six (6) WNV positive birds in 2005. Albertans will be encouraged to submit birds throughout the summer from regions where the virus has not been detected.

Laboratory Testing

Because WNV in a dead corvid can be identified in the Fish and Wildlife disease laboratory in Edmonton, results can be quickly made available to health practitioners, the public, veterinarians, and horse owners.

WNV and Other Species

The Fish and Wildlife Division, of Alberta Sustainable Resource Development in conjunction with other partners, is particularly concerned about WNV in sage grouse and northern shrikes. In addition, the Division will continue to monitor clusters of unusual mortality, regardless of where, or in what species of wild bird or mammal they occur.

Messages to the Public

Information regarding Alberta's WNV surveillance program in birds, information on how to handle dead birds, contact numbers for Fish and Wildlife Offices, numbers of WNV positive birds and answers to Frequently Asked Questions will be available on the Government of Alberta's Fish and Wildlife website.

HORSES

Role in Surveillance

The objective of WNV horse surveillance in Alberta is to identify the presence of the virus so that steps can be taken to reduce the risk of infection in humans and horses.

Because clinical disease in horses can be quite dramatic, horses may be the first species in 2005 in Alberta to be recognized with WNV. Horses, along with corvids, will therefore act as sentinels for WNV in the province.

Low Risk/Serious Illness

Although the risk of an individual horse becoming infected with WNV is very low, a small proportion of horses infected with WNV will develop varying degrees of clinical disease. Up to 35% of these sick horses will die or have to be euthanized because of complications resulting from the illness.

Reporting

Under the federal Health of Animals Act, WNV in any species is an Immediately Notifiable Disease and the laboratory making the diagnosis must report it to the Canadian Food Inspection Agency.

Under Alberta's Livestock Diseases Act, anyone knowing or suspecting WNV infection in a horse must report the occurrence to the Chief Provincial Veterinarian (CPV) as soon as possible.

Information for Owners

Alberta Agriculture Food and Rural Development (AAFRD) and the Alberta Veterinary Medical Association have developed a comprehensive communication plan that informs veterinarians of the surveillance and reporting protocols, and horse owners of the precautions they can take to minimize the risk of WNV to their animals.

Information will be provided to horse owners on steps that can be taken to reduce exposure to mosquitoes that may carry WNV (e.g. reducing mosquito breeding sites, ensuring barns have screening in good repair, applying repellents containing DEET, regularly changing water in water tanks etc).

Horse owners will also be advised to consult their veterinarian regarding the use of vaccination to prevent WNV in their horses.

Messages to the Public

AAFRD will also provide a Fact Sheet, articles in Agri-News, public information spots on "Call of the Land" and materials for various stakeholder publications.

Information will be posted on the AAFRD website, and every Friday, the CPV will update the site with respect to the status of WNV in horses in Alberta.

MOSQUITOES

Role in Surveillance

A mosquito surveillance program will continue in Alberta in 2005 with a similar structure to the 2004 program. There are six surveillance centres proposed in each of the six southern and central Regional Health Authorities with the capacity to increase trapping within and outside these areas should the virus become active.

The purpose of the mosquito surveillance program will be to monitor species and their abundance and to detect the virus so that steps can be taken to reduce risk of disease in humans.

Specific Objectives

To alert the public when the virus has built up to the point of detection in mosquitoes.

To perform WNV testing of *Culex* mosquito pools in different geographical areas of the province. Other species will be monitored for the virus should it become active in *Culex* populations.

To study how climate and environmental factors in Alberta influence mosquito survival and virus activity.

This information will be used for a better understanding of the role of the mosquito in WNV transmission in Alberta.

Larvicide Programs

In 2005, funding will be provided to municipalities in the areas at highest risk for WNV to target control options at the mosquito species most likely to carry West Nile virus. The scale of risk was established by scientific information obtained through 2003 bird, human and mosquito surveillance data.

The target control strategy has been established from the data collected in 2003 and 2004 in Alberta and across the country. Funds will cover training and certification of pesticide applicators, operational expenses (labour, transportation, mapping, monitoring, application equipment) and chemicals for controlling the vector species (*Culex tarsalis*). Control measures are strictly targeted at the mosquito larval stage in standing water bodies. Treatment of those water bodies located on private or public land require landowner approval.

Messages to the Public

Surveillance results will be reported to all five departments, the local municipalities and they will be posted on the AHW website.

COMMUNICATION PLAN

Specific Objectives

To inform Albertans about when and where evidence of West Nile virus is identified in Alberta so that they can take steps to reduce their risk of infection.

To inform Albertans of the potential consequences of a WNV infection, and about the steps they can take to avoid being bitten by mosquitoes, the most effective means of reducing the risk of infection.

Albertans Notified

As early as possible in 2005, the Government of Alberta will inform Albertans of evidence of West Nile virus in the province, whether in birds, horses, mosquitoes or humans.

Regular updates of West Nile virus in birds, horses, humans and mosquitoes will be posted on the Alberta Health and Wellness website.

Public Awareness

Information about West Nile virus and the steps people can take to protect themselves from the disease will be made available to Albertans in a number of ways:

- Beginning in July, a public awareness campaign will remind all Albertans throughout the summer about the simple steps they can take to protect themselves from the disease, and direct them to reliable information through the Alberta Health and Wellness website.
- Albertans can also call Health Link Alberta for more information.